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Job No.: CTCE/BBMP/W.No.18/BRN/CEMENT/2014-15 Date: 05.11.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. B. Rajagopala Naidu,** Contractor, Bangalore.
NAME OF THE WORK	:	Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.
REFERENCE	:	EE/H/AE/WO/686/2011-12 Dated: 24.02.2012
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	160 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	29.00 %	-

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Job No.: CTCE/BBMP/W.No.18/BRN/Sand/2014-15 : 05.11.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.

Agency : **Mr. B. Rajagopala Naidu,** Contractor, Bangalore.

Name of Work : Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.

Reference : EE/H/AE/WO/686/2011-12 Dated: 24.02.2012

Date of Testing : 05.11.2014

Material : Sand

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	23	2.30	2.30	97.7	90-100
2.36	180	18.00	20.30	79.7	75-100
1.18	200	20.00	40.30	59.7	55-90
600 Micron	210	21.00	61.30	38.7	35-59
300 Micron	255	25.50	86.80	13.2	8-30
150 Micron	98	9.80	96.60	3.4	0-10

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Job No.: CTCE/BBMP/W.No.18/BRN/AGG/2014-15 : 05.11.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.

Agency : **Mr. B. Rajagopala Naidu,** Contractor, Bangalore.

Name of Work : Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.

Reference : EE/H/AE/WO/686/2011-12 Dated: 24.02.2012

Date of Testing : 05.11.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **5000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	135	2.70	2.70	97.30	95-100
20	2956	59.12	61.82	38.18	30-70
10	1050	21.00	82.82	17.18	10-35
4.75	689	13.78	96.60	3.40	0-5

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Job No.: CTCE/BBMP/W.No.18/BRN /STEEL/2014-15 07.11.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B. Rajagopala Naidu**, Contractor, Bangalore.
Name of the Work	:	Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.
Reference	:	EE/H/AE/WO/686/2011-12 Dated: 24.02.2012
Date of Test	:	07.11.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	515	556	13.35	O.K	O.K

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Job No.: CTCE/BBMP/W.No.18/BRN /STEEL/2014-15 07.11.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B. Rajagopala Naidu**, Contractor, Bangalore.
Name of the Work	:	Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.
Reference	:	EE/H/AE/WO/686/2011-12 Dated: 24.02.2012
Date of Test	:	07.11.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	518	559	13.50	O.K	O.K

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Job No.: CTCE/BBMP/W.No.18/BRN/BRICKS/2014-15 Date: 10.11.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. B. Rajagopala Naidu,** Contractor, Bangalore.
NAME OF THE WORK	:	Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.
REFERENCE	:	EE/H/AE/WO/686/2011-12 Dated: 24.02.2012
SAMPLE ID	:	Brick Test
SAMPLES SUPPLIED BY	:	CLIENT

The results of the tests conducted on the samples are as follows:

Sl. No	Description	Test method as per IS Codes	Result	Requirement as per IS 1077-1992 (Rev-5)
1	Compressive Strength Of Bricks	IS 3495-1992 (Part-1)	5.60 N/mm2	Class designation 5.0
2	Water Absorption of Bricks	IS 3495-1992 (Part – 2)	10.60 %	Not more than 20 %
3	Efflorescence of Bricks	IS 3495-1992 (Part – 3)	Moderate	Up to 12.5 Class
4	Dimensional Analysis of Bricks (minimum Sampling is 20 Nos)	IS 1077-1992 (Rev – 5)		
(a)	Measurement of Length in mm		4675 mm	(4600 ± 80 mm)
(b)	Measurement of Width in mm		2230 mm	(2200 ± 40 mm)
(c)	Measurement of Height in mm		1420 mm	(1400 ± 40 mm)

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Job No.: CTCE/BBMP/W.No.18/BRN/CUBE/2014-5 19.12.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.
Agency	: **Mr. B. Rajagopala Naidu,** Contractor, Bangalore.
Name of the work	: Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.
Reference	: EE/H/AE/WO/686/2011-12 Dated: 24.02.2012
Sample ID	: Sump cover slab concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	21.11.2014	19.12.2014	8.136	482.3	21.44
2	21.11.2014	19.12.2014	8.263	489.6	21.76
3	21.11.2014	19.12.2014	8.305	510.3	22.68

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Job No.: CTCE/BBMP/W.No.18/BRN/CUBE/2014-5 25.12.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** JC Nagar Sub Division, BBMP, Bangalore.

Agency : **Mr. B. Rajagopala Naidu,** Contractor, Bangalore.

Name of the work : Providing rain water harvesting sump in ward office Radhakrishna temple in Ward No.18, BBMP, Bangalore.

Reference : EE/H/AE/WO/686/2011-12 Dated: 24.02.2012

Sample ID : Cemnt concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.11.2014	25.12.2014	8.190	373.6	16.60
2	27.11.2014	25.12.2014	8.389	398.4	17.71
3	27.11.2014	25.12.2014	8.250	405.2	18.01

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